

WHAT IS CLAIMED IS:

1 1. A code division multiple access transmission system,
2 comprising:

3 on a transmitting side,

4 a means for obtaining a primary modulated wave by
5 performing differential coding phase modulation on a carrier signal
6 in accordance with information; and

7 a means for generating a spread signal including a plurality
8 of transmission segments, by multiplying said primary modulated
9 wave by a spread code repeatedly a plurality of times within a symbol
10 period, and for transmitting said generated spread signal; and

11 on a receiving side,

12 a means for detecting a phase difference between a past
13 symbol and a present symbol, by performing quasi-synchronous
14 detection and despreading, and difference operation; and

15 a means for outputting the detected phase difference as
16 information of said symbol.

1 2. A code division multiple access transmission system,
2 comprising:

3 on a transmission side,

4 a means for obtaining a primary modulated wave by
5 performing phase modulation on a carrier signal in accordance with
6 information;

7 a means for excluding rapid fluctuation of a phase value in a

8 symbol end area of said primary modulated wave; and

9 a means for generating a spread signal by multiplying said
10 primary modulated wave, from which the rapid fluctuation of the
11 phase value is excluded, by a spread code, and for transmitting said
12 generated spread signal; and

13 on a receiving side,

14 a means for regenerating the information by despreading,
15 said despreading being performed by obtaining a sum of values that,
16 in turn, are obtained by multiplying the received spread signal by a
17 corresponding despread code.

1 3. A code division multiple access transmission system,
2 comprising:

3 on a transmitting side,

4 a means for obtaining a primary modulated wave by
5 performing phase modulation on a carrier signal in accordance with
6 information;

7 a means for excluding rapid fluctuation of a value of a spread
8 code in an end area of a spread code period; and

9 a means for generating a spread signal by multiplying said
10 primary modulated wave by a spread code, from which the rapid
11 fluctuation of the value of the spread code is excluded, and for
12 transmitting said generated spread signal; and

13 on a receiving side,

14 a means for regenerating the information by despreading,
15 said despreading being performed by obtaining a sum of values that,

16 in turn, are obtained by multiplying the received spread signal by a
17 corresponding despread code.

1 4. A code division multiple access transmission system,
2 comprising:

3 on a transmitting side,

4 a means for obtaining a primary modulated wave by
5 performing phase modulation on a carrier signal in accordance with
6 information; and

7 a means for generating a spread signal including a plurality
8 of transmission segments, by multiplying said primary modulated
9 wave by a spread code sequence repeatedly a plurality of times within
10 a symbol period, and for transmitting said generated spread signal;
11 and

12 on a receiving side,

13 a means for regenerating the information by despreding,
14 said despreding being performed by obtaining a sum of values that,
15 in turn, are obtained by multiplying transmission segments of the
16 received spread signal by corresponding despread codes;
17 wherein,

18 said means for regenerating on the receiving side performs
19 said despreding in virtual segments defined being superposed on the
20 transmission segments.

1 5. The code division multiple access transmission system
2 according to Claim 1, further comprising, on the transmitting side:

3 a means for excluding rapid fluctuation of a phase value in a
4 symbol end area of said primary modulated wave.

1 6. The code division multiple access transmission system
2 according to Claim 1, further comprising, on the transmitting side:

3 a means for excluding rapid fluctuation of a spread code in an
4 end area of a spread code period of said spread code.

1 7. The code division multiple access transmission system
2 according to Claim 1, further comprising, on the receiving side:

3 a means for regenerating the information by despreading,
4 said despreading being performed by obtaining a sum of values that,
5 in turn, are obtained by multiplying transmission segments of the
6 received spread signal by corresponding despread code sequences;
7 wherein,

8 said means for regenerating on the receiving side performs
9 said despreading in virtual segments defined being superposed on the
10 transmission segments.

1 8. The code division multiple access transmission system
2 according to Claim 5, further comprising, on the transmitting side:

3 a means for excluding rapid fluctuation of a spread code in an
4 end area of a spread code period of said spread code.

1 9. The code division multiple access transmission system
2 according to Claim 5, further comprising, on the receiving side:

3 a means for regenerating the information by despread-
4 ing, said despread-
5 ing being performed by obtaining a sum of values that,
6 in turn, are obtained by multiplying transmission segments of the
7 received spread signal by corresponding despread code sequences;
8 wherein,

9 said means for regenerating on the receiving side performs
10 said despread-
ing in virtual segments defined being superposed on the
transmission segments.

1 10. The code division multiple access transmission system
2 according to Claim 6, further comprising, on the receiving side:

3 a means for regenerating the information by despread-
4 ing, said despread-
5 ing being performed by obtaining a sum of values that,
6 in turn, are obtained by multiplying transmission segments of the
7 received spread signal by corresponding despread codes;
8 wherein,

9 said means for regenerating on the receiving side performs
10 said despread-
ing in virtual segments defined being superposed on the
transmission segments.

1 11. The code division multiple access transmission system
2 according to Claim 8, further comprising, on the receiving side:

3 a means for regenerating the information by despread-
4 ing, said despread-
5 ing being performed by obtaining a sum of values that,
6 in turn, are obtained by multiplying transmission segments of the
received spread signal by corresponding despread code sequences;

7 wherein,

8 said means for regenerating on the receiving side performs
9 said despreading in virtual segments defined being superposed on the
10 transmission segments.

1 12. The code division multiple access transmission system
2 according to Claim 2, further comprising, on the transmitting side:

3 a means for excluding rapid fluctuation of a spread code in an
4 end area of a spread code period of said spread code.

1 ~~13. The code division multiple access transmission system~~
2 ~~according to Claim 2, wherein:~~

3 ~~said means for regenerating on the transmitting side~~
4 ~~performs said despreading in virtual segments defined being~~
5 ~~superposed on the transmission segments.~~

1 14. The code division multiple access transmission system
2 according to Claim 12, wherein:

3 said means for regenerating on the transmitting side
4 performs said despreading in virtual segments defined being
5 superposed on the transmission segments..

1 15. The code division multiple access transmission system
2 according to Claim 3, wherein:

3 said means for regenerating on the transmitting side
4 ~~performs said despreading in virtual segments defined being~~

5. superposed on the transmission segments.